

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/052557

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16G1/12 D07B1/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16G D07B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A A A	<p>EP 0 960 749 A (HANKOOK TIRE CO LTD) 1 December 1999 (1999-12-01) page 2, paragraph 1 page 2, paragraph 9 - page 3, paragraph 14; claims 3,4; figures 1,2; table 1</p> <p>-----</p> <p>EP 0 548 539 A (TOKUSEN KOGYO COMPANY LIMITED) 30 June 1993 (1993-06-30) claims 1,2; table 1</p> <p>-----</p> <p>EP 0 752 325 A (YOKOHAMA RUBBER CO LTD) 8 January 1997 (1997-01-08) page 4, line 24 - line 27; claim 1; table 1</p> <p>-----</p> <p style="text-align: center;">-/--</p>	<p>1-6, 10-14 7-9</p> <p>1-9, 14</p> <p>1-9, 14</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 784 874 A (BRUYNEEL POL ET AL) 28 July 1998 (1998-07-28) cited in the application column 2, line 6 - line 28 column 2, line 64 - column 6, line 58; claims 1,2; figures 1-4	1-14
A	US 4 602 476 A (RIGGS ET AL) 29 July 1986 (1986-07-29) column 1, line 9 - line 25 column 2, line 3 - line 45 column 3, line 19 - line 35; claims 1,2; figure 1	10-13
A	US 4 123 894 A (HUGHES ET AL) 7 November 1978 (1978-11-07) column 3, line 59 - column 4, line 18 column 5, line 36 - line 50; figures 1,2,2A,2B	10-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/052557

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0960749	A	01-12-1999	KR 276014 B1	15-12-2000
			CN 1229866 A ,C	29-09-1999
			EP 0960749 A2	01-12-1999
			JP 3165130 B2	14-05-2001
			JP 2000178887 A	27-06-2000
			US 6098393 A	08-08-2000
EP 0548539	A	30-06-1993	JP 2045334 C	09-04-1996
			JP 5179583 A	20-07-1993
			JP 7068673 B	26-07-1995
			DE 69225054 D1	14-05-1998
			DE 69225054 T2	15-10-1998
			EP 0548539 A2	30-06-1993
			US 5502960 A	02-04-1996
EP 0752325	A	08-01-1997	JP 8258509 A	08-10-1996
			EP 0752325 A1	08-01-1997
			KR 247517 B1	01-05-2000
			US 5894875 A	20-04-1999
			WO 9622892 A1	01-08-1996
US 5784874	A	28-07-1998	BR 9703435 A	27-10-1998
			CA 2202313 A1	03-12-1997
			DE 69726052 D1	18-12-2003
			DE 69726052 T2	08-07-2004
			EP 0811786 A1	10-12-1997
			ES 2208813 T3	16-06-2004
			ID 17320 A	18-12-1997
			JP 10061723 A	06-03-1998
US 4602476	A	29-07-1986	AU 577997 B2	06-10-1988
			AU 5032285 A	12-06-1986
			CA 1248845 A1	17-01-1989
			GB 2167777 A ,B	04-06-1986
			IN 166562 A1	09-06-1990
			NZ 214209 A	27-11-1987
			ZA 8508814 A	30-07-1986
US 4123894	A	07-11-1978	NONE	